



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:  
Ruben et al.

Docket No.: PF466P2

Application No.: 10/078,059

Confirmation No.: 6326

Filed: February 20, 2002

Art Unit: 1646

For: Cytokine Receptor Common Gamma Chain Like

Examiner: E. O'Hara

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure imposed by 37 C.F.R. § 1.56 to inform the Patent and Trademark Office of all references coming to the attention of each individual associated with the filing or prosecution of the subject application, which are or may be material to the patentability of a claim of the subject application, Attorney for Applicants hereby directs the Examiner's attention to references A-AK listed on the attached Form SB/08.

Copies of references B-E, G-L, N, P-V, and Y-AI were submitted by Applicants or cited by the Examiner in connection with United States Application No. 09/263,626, filed on March 5, 1999, to which the instant application claims priority under 35 U.S.C. § 120. Copies of references F, M, W and X were submitted by Applicants or cited by the Examiner in connection with United States Application No. 09/376,430, filed on August 18, 1999, to which the instant application claims priority under 35 U.S.C. § 120. Pursuant to 37 C.F.R. § 1.98(d), the Examiner is directed to the files of United States Application Nos. 09/263,626 and 09/376,430 for copies of references B-N, and P-AI. Additionally, a copy of each of references A, O, AJ and AK is submitted herewith.


The listed references are presented so that the Patent and Trademark Office can determine any materiality thereof to the claimed invention. See 37 C.F.R. § 1.104(a) concerning the Examiner's duty to consider and use any such information. Applicants respectfully request that the Examiner make the listed references of record in the file history of the application, and consider the information contained therein during the prosecution of this application.

Identification of the listed references is not to be construed an admission of any individual associated with the filing or prosecution of the subject application that such references are available as "prior art" against the subject application. Furthermore, Applicants do not waive any rights to take appropriate action to establish patentability over any of the listed documents should they be applied as references against the claims of the subject application.

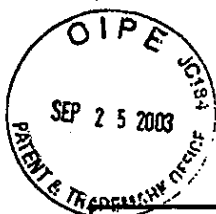
Pursuant to 37 C.F.R. § 1.97(b), this Information Disclosure Statement is being filed before the mailing of a first Office Action on the merits. Accordingly, no fee is believed due. However, should the Patent Office determine otherwise, please charge the required fee to our Deposit Account No. 08-3425.

Dated: September 25, 2003

Respectfully submitted,

By   
Janet M. Martineau  
Registration No.: 46,903  
HUMAN GENOME SCIENCES, INC.  
9410 Key West Avenue  
Rockville, Maryland 20850  
(301) 315-2723

MMW/JMM/KM/lcc/ba



PTO/SB/08a/b (06-03)  
Approved for use through 07/31/2003. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE  
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

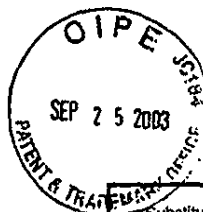
|   |   |    |                          |                        |         |
|---|---|----|--------------------------|------------------------|---------|
| Substitute for form 1449A/B/PTO   |   |    | <b>Complete if Known</b> |                        |         |
|   |   |    | Application Number       | 10/078,059-Conf. #6326 |         |
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br>(Use as many sheets as necessary) |   |    | Filing Date              | February 20, 2002      |         |
|   |   |    | First Named Inventor     | Steven M. Ruben        |         |
|   |   |    | Art Unit                 | 1646                   |         |
|   |   |    | Examiner Name            | E. O'Hara              |         |
| Sheet   | 1 | of | 2                        | Attorney Docket Number | PF466P2 |

| U.S. PATENT DOCUMENTS |                       |   |                                |  |   |
|-----------------------|-----------------------|---|--------------------------------|--|---|
| Examiner Initials*    | Cite No. <sup>1</sup> | Document Number<br>Number-Kind Code* (if known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
| CAH                   | A                     | 5,886,157                                       | 03-23-1999                     | Vanderbilt University                              |   |

| FOREIGN PATENT DOCUMENTS |                       |  |                                |  |   |                |
|--------------------------|-----------------------|--|--------------------------------|--|---|----------------|
| Examiner Initials*       | Cite No. <sup>1</sup> | Foreign Patent Document<br>Country Code*-Number*-Kind Code* (if known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>or Relevant Figures Appear | T <sup>6</sup> |
| CAH                      | B                     | EP 0578 932  | 01-19-1994                     | Ajinomoto KK et al.                                |   |                |
|                          | C                     | WO-02/00724-A2   | 01-03-2002                     | Amgen, Inc.  |   |                |
|                          | D                     | WO-02/00723-A2   | 01-03-2002                     | Whitehead Institute of<br>Biomedical Research      |   |                |
|                          | E                     | WO-03/029423   | 04-24-2003                     | Curagen Corporation                                |   |                |
|                          | F                     | WO-02/068646-A2  | 09-06-2002                     | Schering Corporation                               |   |                |
|                          | G                     | WO-93/18047  | 09-16-1993                     | Ludwig Institute Cancer<br>Research                |   |                |
|                          | H                     | WO-97/17360  | 05-15-1997                     | Dana Farber Cancer Institute                       |   |                |
|                          | I                     | WO-98/42738  | 10-01-1998                     | Human Genome Sciences,<br>Inc.                     |   |                |
|                          | J                     | WO-93/18047  | 09-16-1993                     | Ludwig Institute Cancer<br>Research                |   |                |
|                          | K                     | WO-98/34631  | 08-13-1998                     | Jefferson University                               |   |                |
|                          | L                     | WO-96/10074-A1   | 04-04-1996                     | Vanderbilt University                              |   |                |
|                          | M                     | WO-98/57989  | 12-23-1998                     | Human Genome Sciences,<br>Inc.                     |   |                |

| NON PATENT LITERATURE DOCUMENTS |                       |   |                |  |
|---------------------------------|-----------------------|---|----------------|--|
| Examiner Initials               | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T <sup>2</sup> |  |
| CAH<br>↓<br>✓                   | N                     | GenEmbl Accession No. MAA21949, MARRA et al., "Cloning and chromosomal mapping of bovine interleukin-2 receptor gamma gene" (1996)  |                |  |
|                                 | O                     | TONOZUKA et al., "Molecular cloning of a human novel type I cytokine receptor related to 1/TSLPR," Cytogenet Cell Genet 93:23-25 (2001)   |                |  |
|                                 | P                     | BLAGOEV et al., "Cloning of rat thymic stromal lymphopoietin receptor (TSLPR) and characterization of genomic structure of murine Tslpr gene," Gene 284(1-2):161-168 (2002)   |                |  |
|                                 | Q                     | HE et al., "The structure and function of gamma-c-dependent cytokines and receptors: Regulation of T lymphocyte development and homeostasis," Immunology, 18:503-524 (1998)   |                |  |
|                                 | R                     | JOHNSTON et al., "Signaling by IL-2 and related cytokines: JAKs, STATs, and relationship to immunodeficiency," J. Leukocyte Biol. 60:441-452 (1996)   |                |  |

|                    |                       |                 |         |
|--------------------|-----------------------|-----------------|---------|
| Examiner Signature | <i>Eden B. O'Hara</i> | Date Considered | 12/4/03 |
|--------------------|-----------------------|-----------------|---------|



PTO/SB/08a/b (06-03)  
Approved for use through 07/31/2003. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE  
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

|   |   |    |                          |                        |
|---|---|----|--------------------------|------------------------|
| Substitute for form 1449A/B/PTO   |   |    | <b>Complete if Known</b> |                        |
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br>(Use as many sheets as necessary) |   |    | Application Number       | 10/078,059-Conf. #6326 |
|   |   |    | Filing Date              | February 20, 2002      |
|   |   |    | First Named Inventor     | Steven M. Ruben        |
|   |   |    | Art Unit                 | 1646                   |
|   |   |    | Examiner Name            | E. O'Hara              |
|   |   |    | Attorney Docket Number   | PF466P2                |
| Sheet   | 2 | of | 2                        |                        |

|    |    |   |  |
|----|----|---|--|
| EA | S  | HENTHORN et al., "IL-2R-gamma Gene Microdeletion Demonstrates that Canine X-Linked Severe Combined Immunodeficiency is a Homologue of the Human Disease," <i>Genomics</i> 23:69-74 (1994)                       |  |
|    | T  | YOO et al., "Cloning and chromosomal Mapping of Bovine Interleukin-2 Receptor Gamma Gene," <i>DNA Cell and Biology</i> 15(6):453-459 (1996)   |  |
|    | U  | ZHANG et al., "Identification of a novel type I cytokine receptor CRL2 preferentially expressed by human dendritic cells and activated monocytes," <i>Biochem. and Biophys. Res. Commun.</i> 281:878-883 (2001) |  |
|    | V  | RECHE et al., "Human thymic stromal lymphopoietin preferentially stimulates myeloid cells," <i>J. Immunology</i> 167:336-343 (2001)   |  |
|    | W  | LODISH, H., eds. <i>Molecular Cell Biology</i> , page 193 (1995)  |  |
|    | X  | NGO et al., "The Protein Folding Problem and Tertiary Structure: Computational Complexity, Protein Structure Prediction, and the Levinthal Paradox," eds. K. Merz, Jr. and S. LeGrand, pp. 491-495 (1990)       |  |
|    | Y  | WELLS, James A., "Additivity of Mutational Effects in Proteins," <i>Biochemistry</i> 29:8509-8517 (1990)  |  |
|    | Z  | BOWIE et al., "Deciphering the Message in Protein Sequences: Tolerance to Amino Acid Substitutions," <i>Science</i> , 247:1306-1310 (Mar. 1990)   |  |
|    | AA | TOWNSEND et al., "Peptide Mimics of the Cytokine Receptor Common Gamma Chain," <i>J. Allergy and Clin. Immun.</i> 99(1):16 (1997)   |  |
|    | AB | WATSON et al., eds., <i>The G-Protein Linked Receptor Facts Book</i> , Academic Press, pp. 350-355 (1994)   |  |
|    | AC | CALLARD et al., <i>The Cytokine Facts Book</i> , Academic Press, London (1994)  |  |
|    | AD | GenEmbl Accession No. HSLAS41, COOK, P.R. "Sapiens DNA for loop attachment sequence (clone LAS41)" (April 22, 1996)   |  |
|    | AE | SwissProt 40 Accession No. P11371, JOHNSON et al., "Cytochrome P4502C4 (EC 1.14.14.1) (CYPIIC4)(Progesterone 21-hydroxylase)[P450 PBC4](P1-88)" (July 1, 1989)  |  |
|    | AF | SwissProt 40 Accession No. P00180, LEIGHTON et al., "Cytochrome P4502C1 (EC 1.14.14.1) (CYPIIC1)(Fragment)" (July 1986)   |  |
|    | AG | ALEXANDER et al., "Altering the antigenicity of proteins," <i>PNAS</i> 89:3352-3356 (1992)  |  |
|    | AH | NGO et al., <i>The Protein Folding Problem and Tertiary Structure</i> , pp. 14-16.  |  |
|    | AI | GenBank Accession No. X91553, COOK, P.R. (Apr. 22, 1996)  |  |
|    | AJ | GenBank Accession No. AK026800, KAWAKAMI et al., "Homo sapiens cDNA: FLJ23147 fis, clone LNG09295," (Sept. 12, 2003)  |  |
| ✓  | AK | GenBank Accession No. AC084255, BIRREN et al., "Homo sapiens clone RP11-257013, LOW PASS SEQUENCE SAMPLING," (Oct. 18, 2000)  |  |

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

|                       |                         |                    |         |
|-----------------------|-------------------------|--------------------|---------|
| Examiner<br>Signature | <i>Eileen B. O'Hara</i> | Date<br>Considered | 12/4/03 |
|-----------------------|-------------------------|--------------------|---------|